



STAVE HILL ECOLOGICAL PARK

Timber Pond Road
London SE16 1AG
Tel: 071 237 9175

INTRODUCTION

Stave Hill Ecological Park is managed by the Trust for Urban Ecology as a nature reserve, educational facility, research area and place of recreation. The Park has been designed and managed to form a mosaic of grassland, woodland, scrub and wetland habitats which, although created only a few years ago, already support a wide variety of wildlife.

Visitors can enter from Russia Dock Woodland or from entrances around Stave Hill. The Park is open to the public at all times and has a full-time warden.

We ask all visitors to:

- keep to established paths
- leave wildflowers for others to enjoy
- take litter home with you
- keep dogs under control
- guard against all risk of fire

Thank you.

If you would like to arrange a guided walk for your group or are interested in becoming a volunteer, please contact the Warden on 071 237 9175.

SITE HISTORY

Stave Hill Ecological Park is a 5.2 acre nature area located on the site of Stave Dock in the centre of the former Surrey Commercial Docks, a few minutes walk from historic Rotherhithe and just over the river from Canary Wharf.

The site was offered to the Trust for Urban Ecology in early 1984 by the London Docklands Development Corporation as a replacement for the William Curtis Ecological Park, Britain's first urban nature park. Landscaping work began in 1986 and the park was handed over to the Trust in 1988.

The UK's major timber port, Surrey Docks operated from the 1860s to the early 1970s when much of the area became derelict. Most of the docks and

timber ponds (large areas of water where timber was kept to season) were filled-in with domestic waste, rubble and subsoil from all over London. Some of this was re-excavated as the area was redeveloped and, together with subsoil elsewhere, provided the material that was landscaped to create the park and the adjacent Stave Hill viewing point. The extent of the old docks can be seen on the plaque displayed on the top of Stave Hill, from which you can see much of London, and this aspect of the area's history is kept alive in the names of new streets, housing developments and open spaces: Lavender Pond, Russia Dock Woodland and Canada Water.

Before the docks were built the area was mainly pastureland, and before

that it was a wilderness of water, marsh, reedbeds, alder, poplar and willow carrs inhabited mainly by birds, insects and few hardy wildfowlers and fishermen.

Stave Hill Ecological Park's mosaic of habitats have been created from scratch by sowing and planting the poor soil; which in some places has

been improved or altered by the addition of sand, spent mushroom compost and a variety of mulches. The park is intensively managed to conserve the wide variety of wildlife that colonized the area during the years the docks lay derelict and provide a haven for some of the species that lived here before humans so changed the land.

THE MEADOWS

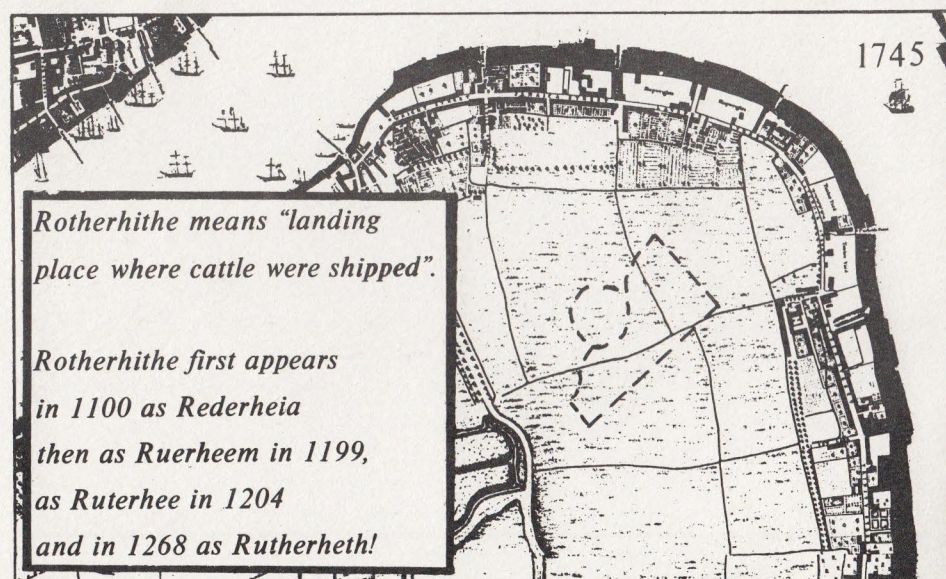
A meadow, strictly speaking, is an area of land used for the production of hay. In the past much of the best land was used to produce high quality hay to feed livestock over the winter. Over the centuries a rich flora developed which contained both grasses and flowering plants. Modern agricultural methods have destroyed most of Britain's old meadows and many once common plants have become rare. At Stave Hill Ecological Park we are trying to recreate this type of habitat.

The park has several types of meadow with the variations resulting from the type of soil and how often and at what time of year the vegetation is cut. In order to encourage a great variety of plants and prevent any one species 'taking over' it is important to keep the soil nutrient levels low, so all the cuttings are removed. (They are then composted and used to enrich soils elsewhere in the park.) Most of the park's soils are calcareous and favour chalk-loving plants such as Ox-eye Daisy, Greater Knapweed, Salad Burnet and Cowslip.

Spring meadows are cut at the end of June or in early July when the plants have finished flowering and set seed. Summer meadows, with their purple flowered Knapweeds and white Yarrow and Wild Carrot, are cut in August.

Our small cornfield is harvested at the end of August using traditional methods. The field is scythed and the 'corn' (actually wheat and barley) tied in 'stooks' or bundles. These will be left out and the grain will provide food for birds and small mammals. During the Winter the field will be dug over in preparation for a new sowing the following Spring.

Britain has lost 97% of its wildflower meadows over the last 50 years. Many have been ploughed-up while others have been 'improved' by the use of new grass varieties, fertilizers and pesticides, some have simply been abandoned and invaded by scrub. The meadows in the park shelter a considerable number of native flowering plants, many of which are threatened





Scentless Mayweed (Matricaria perforata)

with extinction in the countryside. One such plant is Corncockle. Once a common cornfield weed, it is now a rare sight in Britain's farmlands. The distinctive pink-flowered Corncockle can be found in some numbers in our cornfield.

Even relatively common plants need to be conserved. In addition to looking attractive the many herbs to be found growing wild in the park can be used in medicines, food and drink, perfumes and cosmetics. Majoram (in cooking), Feverfew (to help migraine sufferers) and Camomile (used in tea and shampoos), Field Scabious (a cure for itchy skin) and Lady's Bedstraw (to make red dye from the roots, yellow from the flowers).

The grasslands are also a haven for many insects including throngs of Crickets and Grasshoppers. Beetles, Bees, Bumble Bees and Hoverflies collect nectar and pollen from the flowers and the number of Butterflies recorded in the park is increasing every year.

The Brimstone, whose butter-coloured wings gave rise to the name 'butterfly', feeds on the nectar of purple thistles and knapweeds. Thistles also attract Britain's commonest butterfly the Meadow Brown which, uniquely, can be seen flying on dull days and even in drizzle! Nettle patches are the breeding ground for the Aristocrat butterflies: the Peacock, Red Admiral, Painted Lady, Small Tortoiseshell and Comma whose hard bodies are unaffected by the stinging hairs of the nettles.

Birds are attracted to the meadows by the abundance of insect and plant foods. Noisy groups of Starlings search for insects in the short grass, brightly coloured Goldfinches can be seen perched on thistles pecking at the ripe seeds. Skylarks are regular visitors and can often be heard singing high above the park. Kestrels hunt for beetles and small mammals. As surrounding vacant land is developed, the ecological park's open grasslands will become more important to all these birds.

THE SCRUB

The white flowers of Blackthorn are one of the first to appear in the Spring, emerging even before the leaves. A little later, in April and May, small white flowers decorate the sturdy Hawthorn. Guelder Rose boasts larger clusters of white flowers in which the outer ring of large, but sterile, flowers serve to entice bees and other pollinating insects to visit the smaller, fertile flowers in the centre. Once pollinated, these develop into red berries rich in Vitamin C.

The fruits of all these species are an important source of food for birds during the winter — as well as providing a col-

birds to help distribute them far and wide.

The scrub areas also contain White Beam, Field Maple and the bright, orange-berried Seabuckthorn; a plant normally associated with coastal areas, but which grows naturally along the Thames Estuary. Gorse and Broom add a bright yellow to the park's range of colours along the sandy northern ridge. This type of dense, thorny vegetation provides food, shelter and nesting places for many species of birds, particularly finches and some thrushes which like to nest in thick cover.



ourful display for human visitors. Many plants deliberately package their hard, indigestible seeds in tasty fruits as a way of persuading animals and

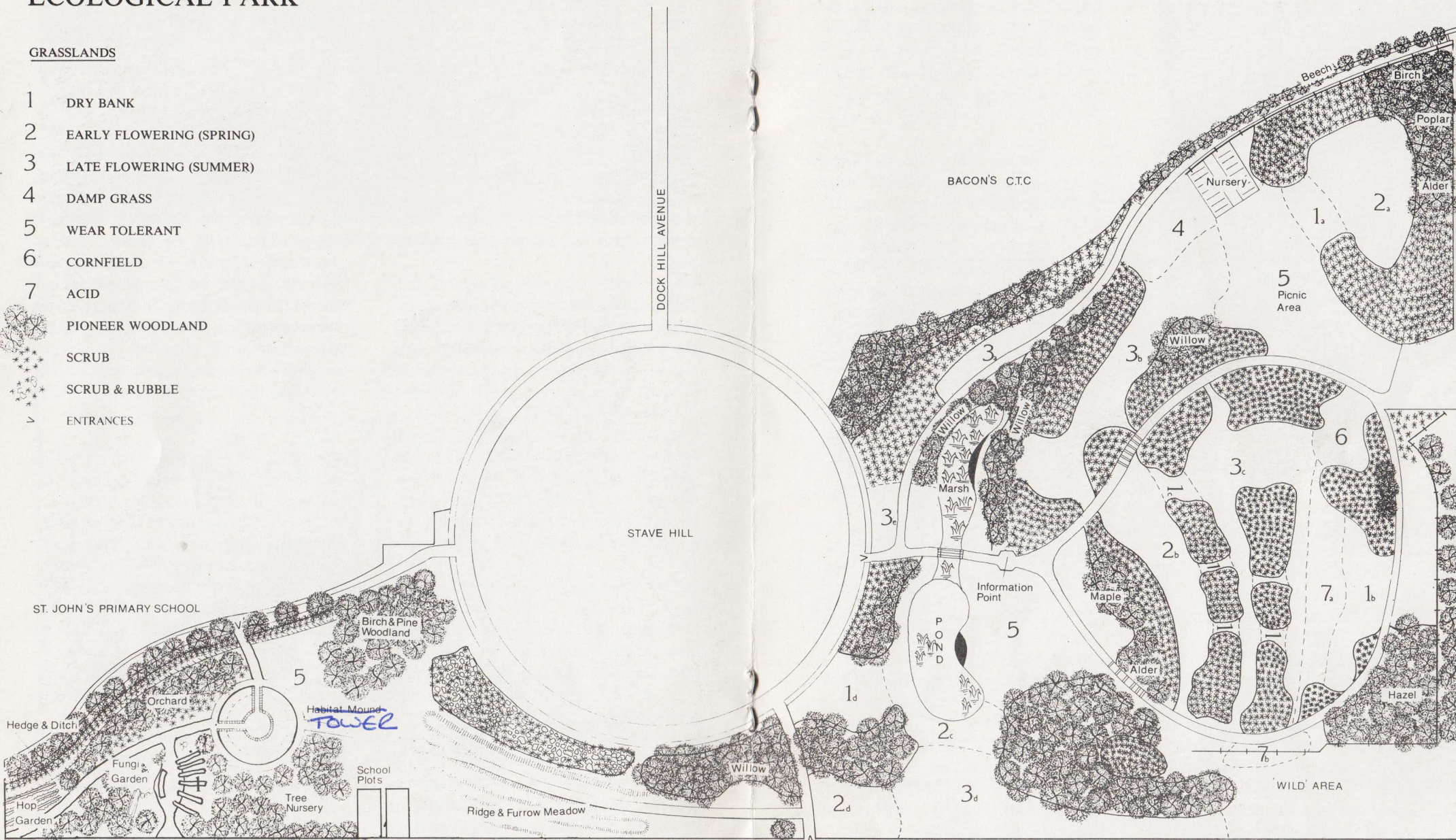
Hazel rods have been harvested and used to make fences and wooden frames

STAVE HILL ECOLOGICAL PARK

GRASSLANDS

- 1 DRY BANK
- 2 EARLY FLOWERING (SPRING)
- 3 LATE FLOWERING (SUMMER)
- 4 DAMP GRASS
- 5 WEAR TOLERANT
- 6 CORNFIELD
- 7 ACID

-  PIONEER WOODLAND
-  SCRUB
-  SCRUB & RUBBLE
-  ENTRANCES



RUSSIA DOCK WOODLAND

since prehistoric times. Left to itself, Hazel will grow into a small tree, but those planted in the park will be 'copiced' or cut back in a few years time to encourage the growth of large numbers of long shoots from the base or 'stool'.

Not all of the shrubs in the park are

native to Britain. Buddleia was introduced from China at the end of the 19th century. Its long, strongly scented spikes of lilac flowers attract many butterflies and other insects. The 'Butterfly Bush', as it is often known, seems able to grow almost anywhere and has become one of the most successful urban plants.

THE WOODLANDS



Willow and products

The park's young woodlands contain mainly 'pioneer' species like Birch,

Alder and Poplar. Usually the first to colonize grassland or bare ground,

these species thrive on poor soils. In Nature, as the soil conditions improve over time, other tree species like Oak and Beech would arrive and eventually out-compete the pioneers and establish a stable or 'climax' woodland. We have tried to help this process along in the park by planting young Oaks amongst the other trees.

Willows and Alders like the wet conditions that prevailed in times past when the Thames regularly flooded this area, so the park contains a variety of willow trees including: Goat or Pussy Willow, Grey, Purple and Eared Willows. All of which are doing well despite the recent series of long, dry summers.

In the past and to a lesser extent today the long stems of willows were harvested to make baskets and similar woven items. The strength and flexibility of willow-wood has made it suitable for many uses from rake teeth to cricket bats.

With help from local children, who have 'adopted' some of the trees, the park staff help the trees to become established by controlling the growth of grasses and creepers which might otherwise smother them. In one area of the park, however, we are letting nature take its course to discover just how much aftercare is needed.

Sycamore, a tree that wasn't included in the original planting, has arrived under its own steam and we are leaving a few to mature. Over the last 50 years Sycamore has become an important urban tree because of its ability to quickly colonize even the most barren areas



Spring flowers

of derelict land. Although it is not native to Britain, the Sycamore is valuable to wildlife providing nectar for many insects early in the year and homes for aphids and other sap-eaters, which in turn provide food for birds.

Although relatively young, the woodlands support a variety of other plants. Bluebells, Violets, Daffodils and Primroses carpet the ground under the trees in Spring and Foxgloves stand tall in early Summer. Among the leaf litter and bark mulch an increasing number of Fungi can be found, including the edible Wood Blewet and the green, slime-capped Verdigris Agaric.

THE POND & MARSH

Ponds and other kinds of wetlands may be purely natural in origin or result from human activities such as peat extraction, quarrying, providing drinking water for cattle or water power for mills. In the past most farms had their fish pond, while in some parts of the country ponds were used in the textile and rope-making trades to 'ret' flax and hemp — soaking it until the soft tissues rotted away to leave valuable fibres that are used to make linen and rope.

Many of these traditional uses of ponds have declined in recent years. Other wetlands have been polluted or drained by modern agricultural methods or just left to gradually disappear as the natural process of 'succession' gradually changes the vegetation and builds up the soil until a marsh emerges from open water and, perhaps a century later, a woodland stands where once there was a pond.

The pond and marsh in the park are completely artificial and quite small and shallow, but nonetheless support a wide variety of aquatic plants and animals.

Many of the plants we have introduced, in addition to being part of the natural vegetation of this part of the Thames valley, would have been used by our ancestors in everyday life.

Reedmace, often wrongly called Bulrush, has thick underwater roots or rhizomes which spread easily and

therefore have to be kept under control. Its straight waterproof leaves can be woven to make baskets and even reed boats, while the fluffy seeds make good mattress-stuffing! Other useful plants include Meadowsweet and Yellow Loosestrife — both found in the marsh. In Tudor times Meadowsweet was cut and laid on floors, which would usually have been simply packed earth, to mask unpleasant smells. Yellow Loosestrife, a tall plant with spikes of bright flowers, was burnt in houses as a fumigant as its smoke drove away fleas and gnats. Among the tall, leafy aquatic plants there are Bogbean with its beautiful pink flowers (used to treat boils), Marsh Mallow (used to make the sweet of the same name) and Soapwort (still used today by some soap-makers).

The two wetlands are home to large numbers of frogs and toads which, after laying their spawn between January and March, spend most of their time in the surrounding tall grass or under the bark mulch hunting for food.

Mayflies, Water bugs, Pond Snails, Leeches and Water Skaters are amongst a whole host of insects which thrive in the shallow water. Dragonflies and Damselflies can also be seen hunting above the open water or resting on convenient reeds.

Thrushes, Starlings and Pigeons visit the pond to drink and bathe. Ducks stay longer, if not disturbed, and feed



or hide in the reeds. And Herons hunting for frogs make occasional visits, leaving their distinctive 3-toed foot-

prints in the soft mud along the pond's edge.

EDUCATION

Although the whole park is used for a wide range of educational activities, covering every aspect of the curriculum from Art to Zoology, the southernmost section is being developed specifically for educational use. This 'Education Area' will include a variety of innovative and experimental features designed to demonstrate techniques of habitat creation and show what can be achieved in a small space in the heart of a major city. It will be fully accessible for people with disabilities, with features designed for, and with, those sections of the community who have special needs.

Permanent features will include a 'Habitat Mound' incorporating a variety of linked habitats from chalk grassland through a rubble slope to shady and damp walls supporting ferns, mosses and liverworts. A 'Fungi Garden' is also planned. Fungi are excellent subjects for investigation by schoolchildren and can feature in pro-

jects on almost any subject from Chemistry to Cookery. Space will also be provided for experimental beds for schools to use and for a changing display of designs for small playgrounds and similar spaces. One interesting area of work concerns ethnobotany — the study of plants and their uses — which is being developed in conjunction with the local Body Shop.

The area will form an important resource for schools in Southwark and the adjacent Boroughs, particularly for the three schools sited next to the park.

Stave Hill Ecological Park is also visited by students and professionals from Britain and overseas. These landscape architects, planners, geographers, ecologists and social scientists come to study and learn from our successes (and failures!) in designing, managing and using London's largest created ecological park.

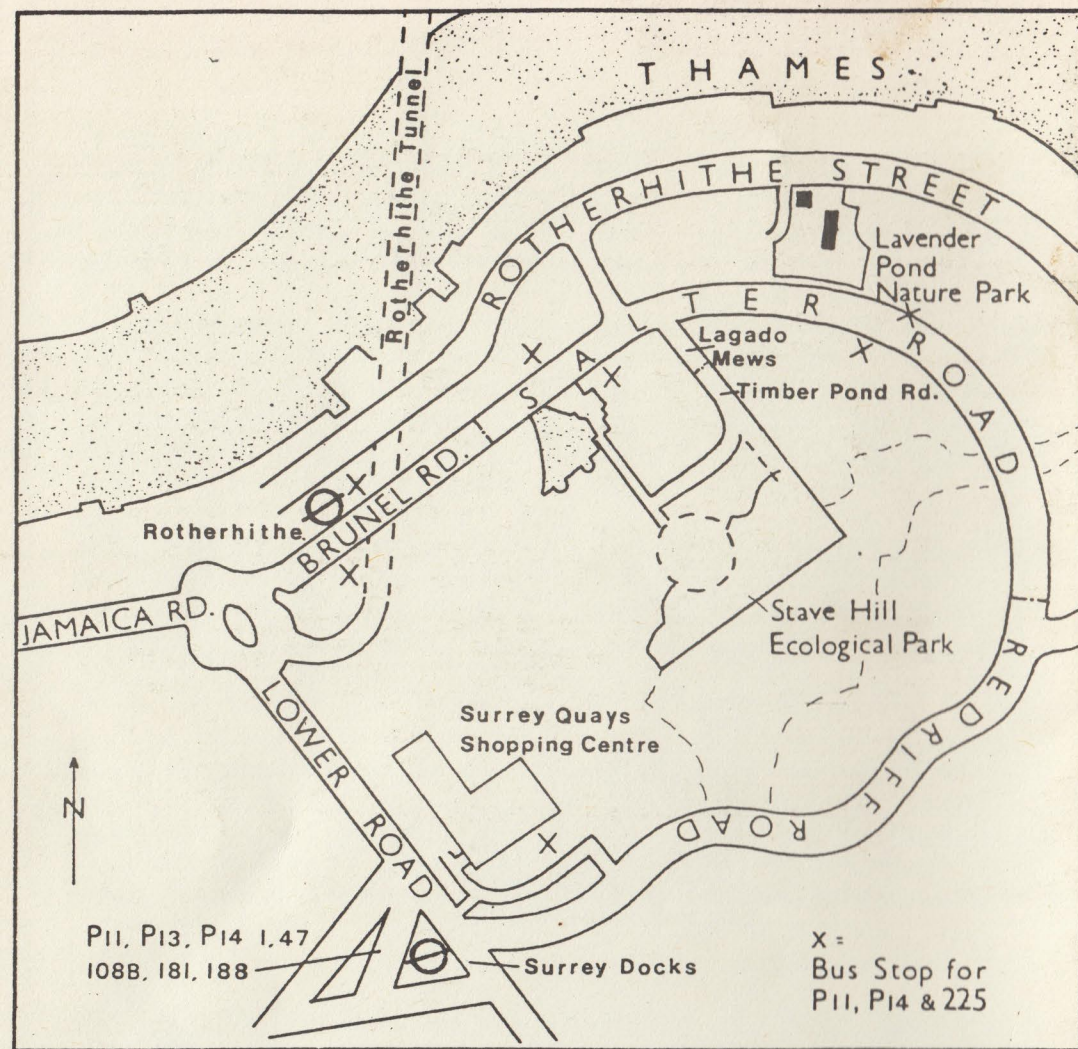


Pupils from Redriff Primary School



T R U E
TRUST FOR URBAN ECOLOGY

The Trust would like to thank the following for their help and support: The London Docklands Development Corporation, Department of the Environment, Welconstruct Co. Ltd., Hi-Lo Manufacturing Ltd., Body Shop in Surrey Quays, Wolf Construction, Surrey Quays Food Hall, Southwark Parks Dept., BTCV, UK2000-Thames Project, the London Probation Service. We would also like to thank: Fraser Borwick, Bob Tremaine, David Solman, Brian Worzel, George Hand, Mick Wheatley and the many others who have given advice and assistance.



Produced with grant aid from



Recycled Paper